

Marketing of Medicinal and Aromatic Plant Products of Nepal in Domestic and International Markets¹

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Introduction

In recent years the value of Medicinal and Aromatic Plant (MAP) products is receiving increasing attention worldwide. MAPs are traded internationally mainly as dried herbs. Both wild and cultivated varieties are traded mostly in “crude”, or “unprocessed” forms. The international trade is increasing for the herbs. Likewise wholesale market for organic herbs is increasing particularly in Germany and Switzerland and price premium for such herbs exceeds 25%.

This paper briefly describes market channels through which MAPs are moved from the place of origin all the way to the consumers. This is followed by the overview of demand and prices of select MAPs of Nepal. Then practical steps for accessing markets, both domestic and international, are presented, and challenges faced in marketing are analyzed. Finally, some strategies are recommended to overcome the challenges maximizing the opportunities we have at hand.

Marketing Channels

The collected or processed MAPs from forest or cultivated land can be sold through different market channels in different forms from crude raw materials to improved raw materials or semi-processed materials through consumer products. Collectors generally sell their products without value addition to local traders who sell the products down stream to road head traders. The road-head traders then sell the products to regional traders and finally to Indian traders.

In the case of aromatic plant products, collectors sell to the processors (either directly or through traders) who extract the essential oils and then sell the oil and its by products to traders and manufacturers in Nepal, India, and overseas.

Once products reach the border they are generally sold in Indian markets for use primarily in manufacturing medicines and consumer products. Some of these products are exported from India to foreign markets, but a large portion is consumed in India.

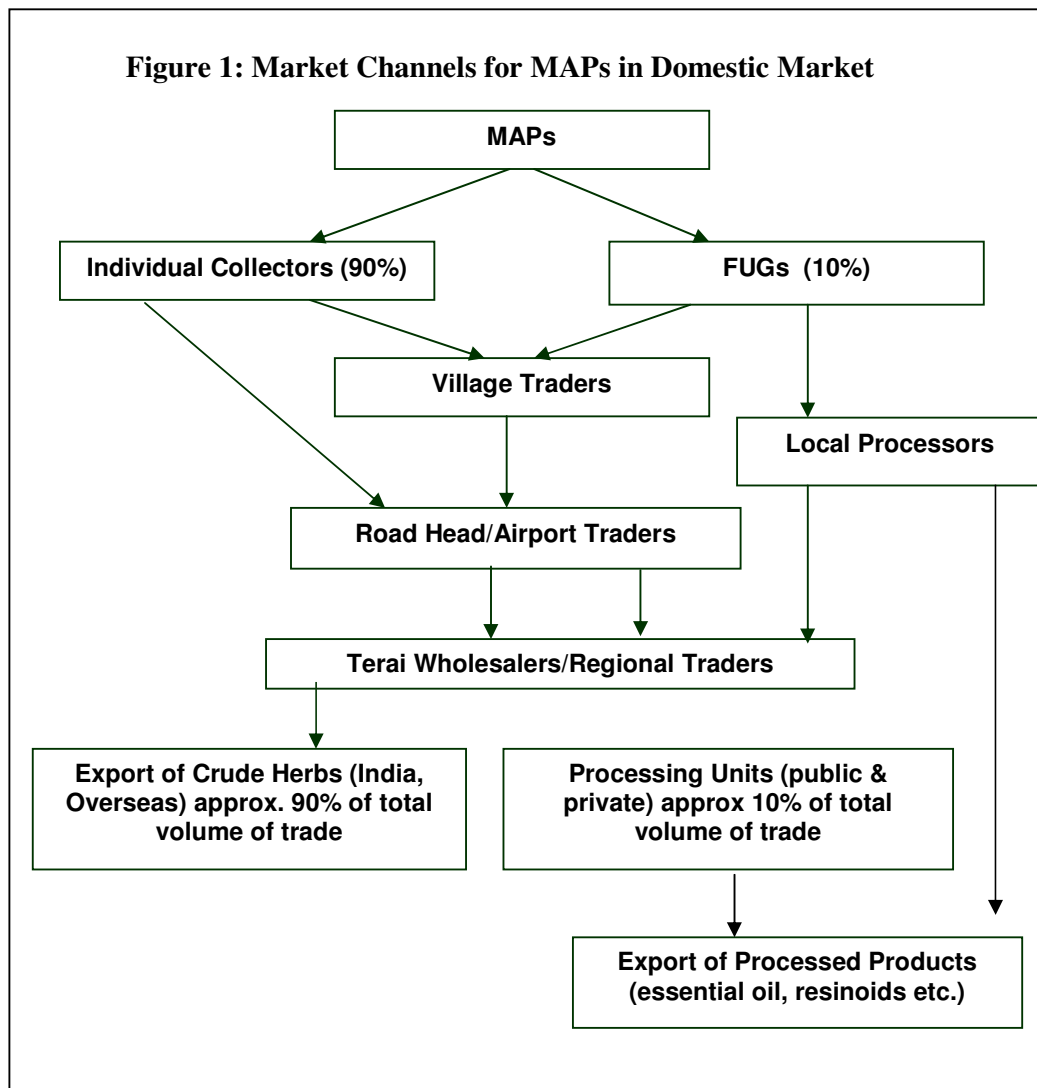
A. Domestic

MAPs harvested for commercial purpose are carried away from the villages and district headquarters and are sold to the traders and middlemen in bigger markets like Nepalgunj. Currently local collectors bring products harvested from near by forests and pastures to village level traders and/or district level traders who stockpile the material and resell it to Terai wholesalers. The wholesalers often place orders for specific products with the local/district traders or come to the areas directly to arrange the purchase of the products. The

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Terai wholesalers then supply the products to markets of India. Many Indian buyers are commission agents.

The main demand for medicinal plants comes from big Indian companies and pharmaceutical concerns. These firms generally buy from traders or middlemen who are either Indian or Nepalese. Indian wholesalers come from time to time to trading towns and road heads - the major collection points in the hills. They have agreements with shopkeepers who, in turn, are in touch with a network of village based traders and collectors throughout the less accessible parts of the country. Several medicinal plant wholesalers are also based in Kathmandu and use the same network of middlemen to buy material and sell on to their contacts in India. The Figure 1 below illustrates general market channel for MAPs in Domestic Market.



B. International

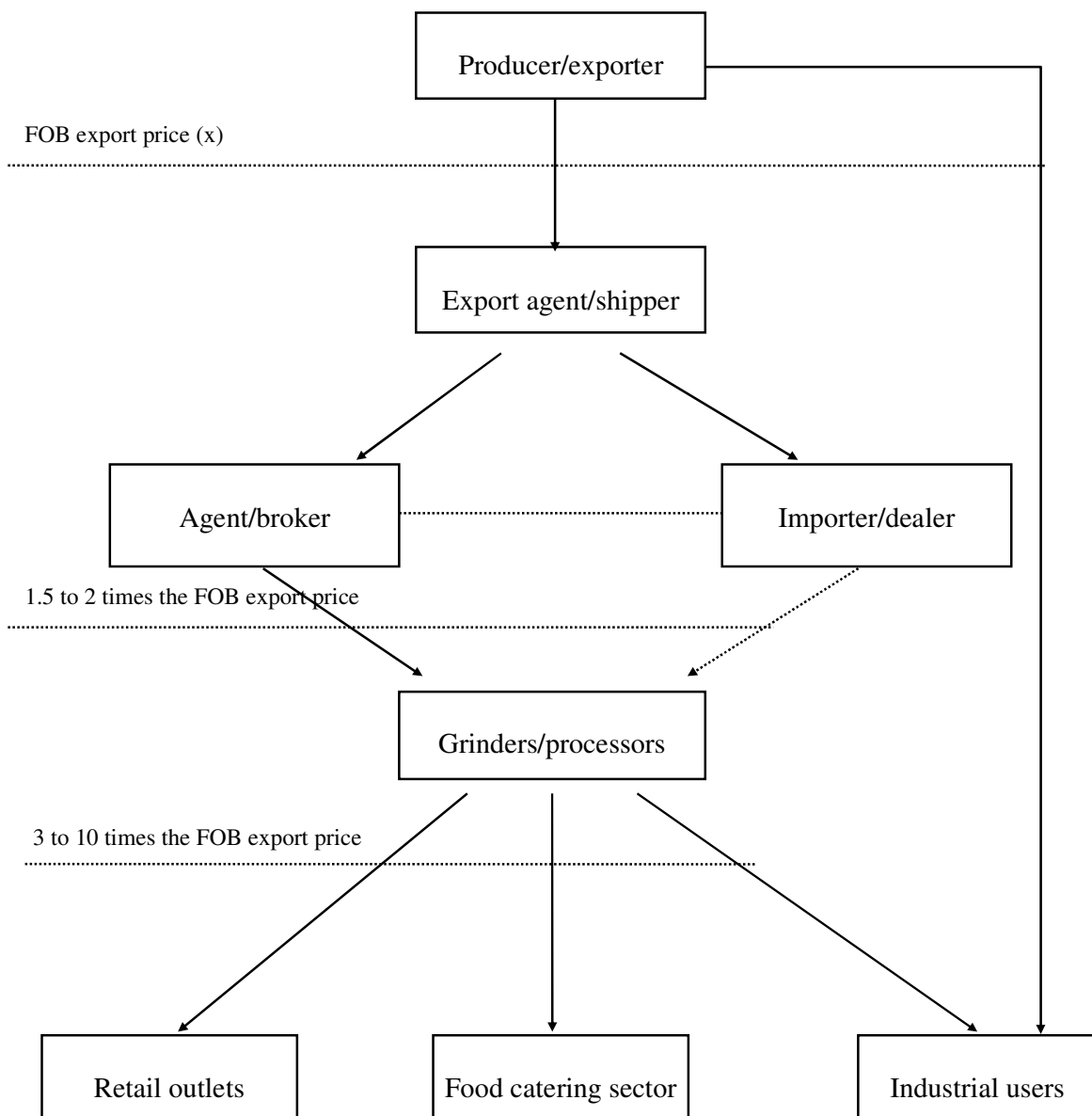
In international market MAPs are traded under the “Herbs and Spices” category and they follow the same trade structure and distribution channels of herbs and spices. Very few dealers and brokers deal exclusively with medicinal herbs. In recent years direct trade

between producers/exporters in developing countries (mainly medium and large scale) and processors in consuming countries is increasing.

The MAP trade is highly dependent on mutual trust and confidence between the suppliers and the processors. The major herb processors as well as large trading companies establish close relationships with their main suppliers through visits and provide technical assistance services on such matters as harvesting and production.

International marketing functions through four major trading participants: importers, processors, wholesalers, and retailers. The Figure 2 shows market channels for MAPs in international markets.

Figure 2: Market Channels for MAP in International Market



Source: International Trade Center UNCTAD/GATT

Market Demand & Prices

Demand in global markets is increasing for the MAPs that grow in mountains especially above the elevation of 3000 meters. Recent market trend shows that the use of green products especially health products, flavors and fragrances is receiving increasing attention worldwide. Scientists, researchers and multinational pharmaceutical companies are looking for active substances in the plants for the cure of various diseases, where modern synthetic medicines are proved to be less effective.

MAPs are mainly used in pharmaceutical industry for their formulations such as tablet, capsules, powders and extracts. Ayurveda and Traditional Chinese medicines extensively use MAPs in their treatment. In addition they are used in pharmaceutical research to find out new drug components. Besides they are used in aromatherapy, perfumery industry, health food and dying industries.

Use of natural products in Europe is increasing. In European Community (EC) France is the biggest market for herbal products. It holds almost 42.5% market share of EC. Companies called BOIRON and DOLISOS are the two biggest herbal users in France as well as in EC. They hold 15% and 9% market share respectively in whole EC in 1992. Germany is the second biggest market for herbal products in EC, which holds 29% market share. The HEEL and DHU are the biggest herbal suppliers in Germany who hold 6% and 5% market share in the whole EC in 1992.

In the United States 25% of prescriptions are filled with drugs whose active ingredients are extracted or derived from plants. Sales of these plants based drugs amounted to US \$ 15.5 billion in 1990 (Principe). Other countries are the UK and Netherlands who also buy medicinal herbs in considerable quantities.

Demand of MAPs mainly comes for three major use categories:

1. Pharmaceutical Industry & Research

- Use of plant products in dried form in the formulation of Ayurvedic medicines
- Use of plant products in the form of extracts, alkaloids, glycosides in modern medicines
- Phytochemical screening of plants for the isolation of new drugs for various diseases. Examples of new drugs isolated from such screenings include *Taxol* from *Taxus baccta*, *Valepotriates* from *Valeriana Spp*, *Vincristin* from *Vinca rosea*

2. Health Care

- Ayurveda, Siddha & Unani medicines are based mainly on plants, widely used in India, Bangladesh, Nepal, Pakistan & Srilanka
- Ayurveda alone has 8000 different medicines based on plants
- 80% of medicines used in Chinese traditional medicines are from high altitude medicinal and aromatic plants
- 25% of allopathic prescriptions are filled with plant and plant derived products

3. Consumer Market

- Natural & health food shops such as herbal teas, medicated drinks, tonics, etc.

- Cosmetics and perfumery industries- essential oils such as *Jatamansi* and *Sugandhwal* oils are used in this purpose
- Health care products such as tooth paste, hair oils and soaps: *Amala*, *Bhringaraj*, *Lemongrass*, *Citronella* and *Zanthoxylum*
- Aromatherapy: Essential Oils such as *Aretemisia*, *Jatamansi*, *Sunpati*, *Sugandhwal*, *Juniper* and *Zanthoxylum* etc.
- Cooking and flavoring: *Mint*, *Rosemary*, *Lemongrass*, *Thyme*, *Basil*, etc.
- Food additives: Juniper berry oil for blending alcoholic beverage, *Chiraita* for bitter taste in beverages, etc.
- Natural Dyes: such as *Berberis* and *Manjitho*
- Insecticide: such as *Titepati* and *Neem*

A. Price & Profit Margins

Tables 1, 2 and 3 below give an indication of prices and demand level at different market points for the selected products.

Table 1. Selling Price, Market Demand and Price Trends of Some MAPs at Different Points in the Trade Channel from Jumla to India in 1999 (in Rupees per Kg.)

| SN | Products | Collectors, Jumla | Jumla Bazaar | Nepalganjgan | Lucknow | Kanpur | Delhi | Price Trend | Demand Market |
|----|-------------|-------------------|--------------|--------------|---------|--------|-------|-------------|---------------|
| | | Rs/Kg | Rs/Kg | Rs/Kg | Rs/Kg | Rs/Kg | Rs/Kg | | |
| 1 | Jatamansi | 40 | 45 | 105 | 168 | 160 | 172 | up | high |
| 2 | Sugandhwal | 40 | 45 | 100 | 144 | 148 | 150 | up | high |
| 3 | Kutki | 55 | 75 | 150 | 168 | 168 | 170 | up | high |
| 4 | Guchi Chyau | 2500 | 2800 | 4000 | - | - | 4800 | same | high |
| 5 | Padamchal | 15 | 20 | 25 | 56 | 70 | 48 | down | low |
| 6 | Amalbed | 20 | 25 | 50 | 64 | 70 | 70 | down | medium |
| 7 | Atis | 90 | 100 | 170 | 200 | 216 | 190 | same | medium |
| 8 | Bojho | 10 | 15 | 25 | 40 | 40 | 45 | down | medium |
| 9 | Kaladana | 70 | 80 | 170 | - | - | 200 | down | medium |
| 10 | Kakarsingi | 180 | 190 | 370 | 456 | 460 | 470 | up | high |
| 11 | Bhutkesh | 22 | 30 | 85 | - | - | 100 | down | medium |

Source: ANSAB/CBED, Karnali NTFP Subsector Study 1999

Note : Up = Increasing, Same = No change, Down =Decreasing, - = Not in trade.
In Kannauj, only Jatamansi and Sugandhwal are processed.

**Table 2. Price of few select raw MAP products at some Nepalese and Indian cities
in July 2001**

| S. N. | Products | Nepalgunj NRs./kg | Kathmandu NRS/Kg | Lucknow NRs./Kg. | Delhi NRs./Kg. |
|-------|--------------|----------------------|---------------------|---------------------|-------------------|
| 1 | Alainchi | - | 260 | 300 | 304 |
| 2 | Amalbed | 110 | 90 | 120 | 160 |
| 3 | Amala | 34 | 40 | 32 | 42 |
| 4 | Atis | 285 | 325 | 384 | 400 |
| 5 | Bojho | 32 | 32 | 38 | 42 |
| 6 | Chiraito | 340 | 375 | 392 | 448 |
| 7 | Dalchini | 55 | 45 | 64 | 56 |
| 8 | Dhupjadi | 140 | 80 | 150 | 200 |
| 9 | Guchhi Chyau | 5000 | 5000 | - | 5700 |
| 10 | Jatamansi * | 160 | 125 | 224 | 296 |
| 11 | Kaladana | 55 | 60 | 125 | 96 |
| 12 | Kakarsinghi | 165 | 225 | 184 | 192 |
| 13 | Majitho | 30 | 30 | 48 | 61 |
| 14 | Padamchal | 40 | 35 | 51 | 48 |
| 15 | Pakhanbed | 15 | 15 | 24 | 24 |
| 16 | Rittha | 15 | 20 | 18 | 24 |
| 17 | Satawari | 180 | 150 | 144 | 240 |
| 18 | Satuwa | 70 | 85 | 205 | 144 |
| 19 | Sikakai | 20 | 19 | 22 | 29 |
| 20 | Silajit* | 220 | 220 | 320 | 328 |
| 21 | Sugandwal* | 80 | 75 | 120 | 125 |
| 22 | Suntho | 60 | 60 | 64 | 72 |
| 23 | Tejpat | 25 | 30 | 29 | 32 |
| 24 | Timur | 85 | 80 | 96 | 99 |

Source: ANSAB NTFP Market Information System Project

Note: * Ban on export in crude form

**Table 3. Commercial Uses, Price Fluctuation, and Sources of Supply of Select MAPs in
International Markets at Retail Level**

| Products | Types of buyers | Commercial uses | Selling price | Price fluctuation |
|---|---------------------------------------|-------------------------------------|----------------------------|----------------------|
| Acorus calamus (Bojho) | Medicinal fragrance | Medicinal fragrance | US\$ 9.49/oz | High |
| Juniperus indica (Juniper) | Medicinal & aromatherapy retailers | Medicinal & food/drink additives | US\$ 25 to 60/oz | High |
| Rhododendron anthopogon (Sunpati) | Medicinal & aromatherapy retailers | Flavour fragrance | US\$ 18.95/14ml (0.50z) | Not known |
| Nardostachys grandiflora (Jatamansi) | Medicinal & aromatherapy retailers | Medicinal fragrance | US\$ 9 to 250/oz | High |
| Valeriana jatamansi (Sugandhwal) | Medicinal & aromatherapy retailers | Medicinal fragrance | US\$ 1 to 125/oz | Stable |
| Morcella conica (Guchi Chyau) | Importers, processors, packagers | Food | US\$ 30/4oz 140 FF/100g | High |

Source: ANSAB, Karnali NTFP Subsector Study 1999

It is difficult to assess the profit margin in each level of marketing channel. The importers of MAPs buy the products in bulk quantity and then supply the processors or wholesalers. The

processors pack the MAPs in small quantities and sell to the wholesalers. Usually importers take 40-100% gross margin for the products they import. Processors gross margin could be 150 –500%. Wholesalers supply the products to the retailers; they take 60-100% gross margin depending upon the products and quantity. Retailers normally take 100% gross margin on their sales. A case of distribution of profits for a select group of MAPs is shown in Table 4, which illustrates that the distribution is less skewed for the unrestricted products than that for the products banned for export without processing.

Table 4. Average Profit Margins for Select MAPs of Nepal at Different Markets

| Participants | Buying Price (Rs.) | Royalty/ta x (Rs.) | Marketing cost/cost of collection (Rs.) | Selling Price (Rs.) | Profit Margin (Rs.) |
|------------------------|--------------------|--------------------|---|---------------------|---------------------|
| For Jatamansi | | | | | |
| Collectors | N/A | N/A | 34 | 40 | 6 |
| Village traders | 40 | N/A | 3 | 45 | 2 |
| Airport traders | 45 | 15 | 29 | 105 | 16 |
| Nepalgunj traders | 105 | N/A | 29 | 172 | 38 |
| For Sugandhwal | | | | | |
| Collectors | N/A | N/A | 45 | 40 | -5 |
| Village traders | 40 | N/A | 3 | 45 | 2 |
| Airport traders | 45 | 15 | 27 | 100 | 13 |
| Nepalgunj traders | 100 | N/A | 28 | 150 | 22 |
| For Kutki | | | | | |
| Collectors | N/A | N/A | 45 | 55 | 10 |
| Village traders | 55 | N/A | 3 | 75 | 17 |
| Airport traders | 75 | 10 | 27 | 150 | 38 |
| Nepalgunj traders | 150 | N/A | 10 | 170 | 10 |
| For Guchi Chyau | | | | | |
| Collectors | N/A | N/A | 900 | 2500 | 1600 |
| Village traders | 2500 | N/A | 30 | 2800 | 270 |
| Airport traders | 2800 | 200 | 160 | 4000 | 840 |
| Nepalgunj traders | 4000 | N/A | 205 | 4800 | 595 |

Source: ANSAB/CBED, Karnali NTFP Sub-sector Study, 1999.

How to Access Market

Potential exporters should contact established importers or processors in order to have their sample evaluated and to obtain advice on the possibilities for penetrating a given market. The current market for NTFPs is not short of supplies, and all things considered, new companies seeking entry will have to compete with traditional suppliers. The only way to penetrate the market is to offer products of consistently high quality. Clean products of assured quality, good appearance, and if possible, with properties distinguishing them from their competitors (flavor, color, essential oil content) can secure a place in European market. They can be sold at a premium price over products from other origins. The MAPs consuming countries in Europe are quality conscious. Their quality requirements are more stringent, particularly with respect to cleanliness and chemical contamination.

A. Domestic

- Investigate the industries using MAPs in their final products
- Contact established traders and manufacturers

- Acquire market information on price, demand, quantity, supply season (peak season, lean season, etc)

B. International

- Approach traders/importers/end-users by contacts (mail, electronic media, internet)
- Send offer with representative samples
- Get sample evaluated and obtain advice from the importer for quality & quantity
- Negotiate contract on the basis of quantity delivered, purchasing price, mode of delivery and payment

Common Business Practices

Contracts are negotiated on the basis of samples supplied. Most traders prefer to receive prices on Cost, Insurance and Freight (CIF) and Cost and Freight (C&F) destination basis in major European currencies (US Dollar, Deutch Mark, or Sterling Pounds). New exporters are usually paid after the receipt of the goods. Established suppliers are paid either by Letter of Credit (L/C), or on an advance payment basis. Contracts may be made for the coming harvest with the exporters who have supplied products satisfactorily for several years. Contracts are usually negotiated on the basis of quantity delivered, purchasing price, mode of delivery and payment.

The trade of MAPs takes place between the exporters and large importers who in turn supply to the retail market and industrial users. Strict quality and sanitation requirements, and especially the closed distribution network for retailers in the European markets are particularly difficult to surmount. The market for MAPs is not very price sensitive, but it places great importance on quality and on freedom from microbial contamination.

Challenges

Collectors, processors and traders face problems in finding favorable markets due to price factors, quality and quantity considerations. Local and regional price fluctuations as well as the lack of current market and price information affect the income of the actual local collector who is dependent on the middleman or village trader. Financial and logistic constraints make it difficult for local producers and collectors to interact more closely with prospective clients.

The followings are the major challenges in Nepal in trading MAPs both at domestic and international level.

- Inadequate knowledge and incomplete information on products, markets and prices on the part of collectors/producers
- Difficult to access appropriate markets and market information
- No proper recognition of environmentally and commercially sound MAPs
- Inability to visit traders/buyers or interact closely with them
- Defective policy and regulatory environment for trading MAPs, which is hindering the business
- Lack of standardization and consistency in quality for international marketing
- Astringent phyto-sanitary regulations such as requirement of microbiological test, pesticides and heavy metal test by international markets
- Uneven distribution of benefits

Recommended Strategies

The current increase in the worldwide consumption and use of 'green' products, especially drugs, flavors and fragrances of natural origin, has indeed amplified the scope of the use of indigenous flora and collection and trade of exotic species. The identification of the ultimate suppliers and buyers is also big issue in this sector. The gaps between the producers/collectors and traders or buyers need to be minimized as these are, at present, very wide and often inequitable. Linkages should be developed in order to have better understanding about the NTFPs business among themselves and between the businesses and the producers/collectors. The following strategies can be recommended for successful marketing of MAPs of Nepal.

- Identify the target market segments
- Profile your customers
- Assess the competition, demand and supply
- Identify and assess the means of marketing
- Position the product
- Establish proper linkages with buyers
- Define the products and set policies for pricing, distribution and promotion
 - » Insure product quality and be consistent
 - » Set prices, price discounts, rebates, payment policies
 - » Select distribution channels and systems
 - » Promote products and pursue customers
- Keep timely communication and follow up with the clients and investigate new clients.

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